

CULVER CITY POLICE & FIRE DEPARTMENT



UNMANNED AERIAL VEHICLE (DRONE)

END OF PILOT PROGRAM REPORT

End of Pilot Program Report

Overview

In February of 2019, after months of research, the Culver City Police and Fire Departments began an eighteen month unmanned aerial vehicle (UAV) or drone pilot program. UAVs are an emerging technology in the field of public safety and their use is becoming common place for Police and Fire agencies across the country. UAVs are lightweight, relatively inexpensive, and can be deployed quickly in the field to assist first responders address rapidly unfolding emergency incidents. These community safety tools are reactive and incident driven, and are never used for routine patrol. Bound by strict policies that control how they can be used, UAVs have proven to be an extremely valuable public safety tool during the twenty-two-month pilot program. We currently have sixteen pilots on staff, all of which are licensed through the FAA. Please visit our website www.culvercitypd.org for more information on our UAV program and to review our UAV policy.

Utilization

During what ended up being a twenty-two-month pilot program, the UAVs have been deployed fifty times. It should be noted that there were sixteen deployments outside of Culver City, all of which were either related to a crime originating in Culver City, or in response to a request for assistance from an outside agency. See below for a detailed breakdown of each deployment:

	PILOT	DR#	DATE	TIME	LOCATION	DRONE DEPLOYMENT CRITERIA	INCIDENT DISPOSITION	FOOTAGE OBTAINED
1	Park	19-448	2/25/19	1000	Waste Mgmt El Sobrante Landfill, Corona	Supporting Search/Arrest Warrant Operation	Ongoing Pending	Approx. 15 mins video
2	Park	19-448	3/26/19	0930	Waste Mgmt El Sobrante Landfill, Corona	Supporting Search/Arrest Warrant Operation	PC 187	15 mins video
3	Ogden	19-1806	4/7/19	1000	Rosecrans Ave/ Aviation Blvd, Hawthorne	R/C Assist Hawthorne PD Crime Scene	OIS	13 pictures 4:23 mins video
4	Baskaron	19-1814	4/8/19	1025	Washington Blvd/ Atlantic Ave, Culver City	R/C Assist CCPD Detectives Crime Scene	Shooting	4 pictures 3 videos (11:34 mins total)
5	Park	19-1365	4/10/19	1925	7906 Kittyhawk Ave, Los Angeles	Supporting Search/Arrest Warrant Operation	Commercial Burglary	2 videos 17:15 video
6	Badour	19-1896	4/12/19	1139	4038 Albright Ave, Culver City	Suspect possibly in attic Perimeter Search	Residential Burglary	4 pictures
7	Baskaron	19-1365	5/1/19	0815	4800 Forman Ave, North Hollywood	Supporting Search/Arrest Warrant Operation	Arrest made	2 videos
8	Ogden	18-7198	5/16/19	0700	8600 Tobias Ave #248, Panorama City	Supporting Search/Arrest Warrant Operation	Arrest made, Assist with Clearing Residence	None
9	Amerian	18-4255	6/6/19	1530	12200 blk York Ave, Hawthorne	Supporting Search/Arrest Warrant Operation	Arrest made	2 videos
10	Baskaron	19-3073	6/8/19	1450	5900 blk Bedford Ave, Los Angeles	Supporting Search/Arrest Warrant Operation	Arrest made	6 videos

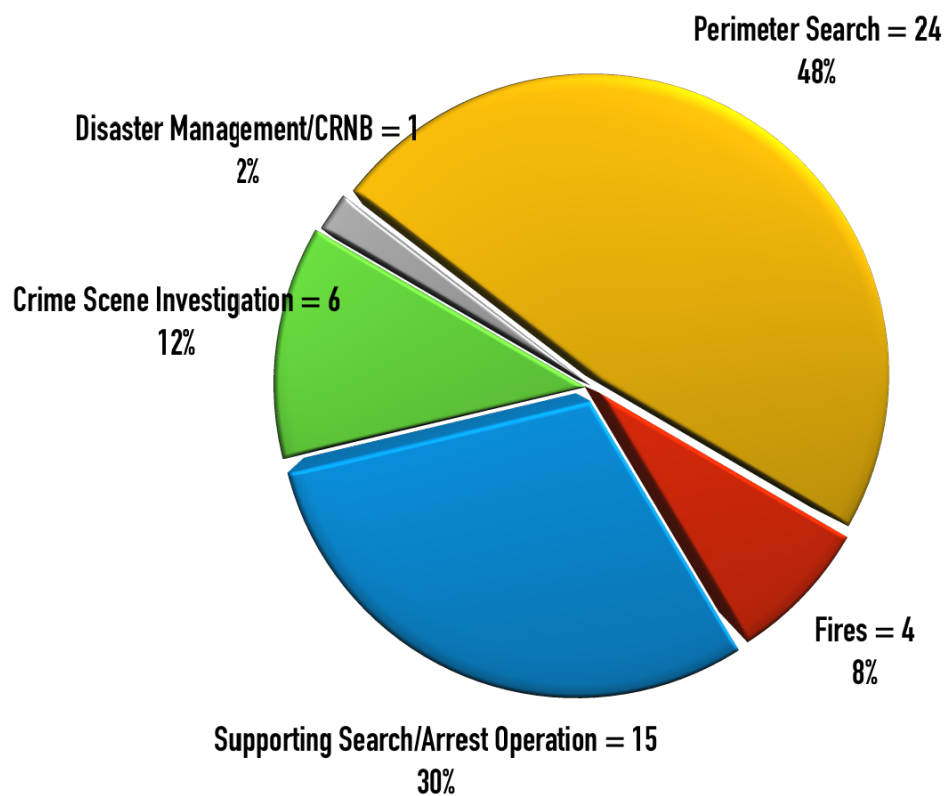
	PILOT	DR#	DATE	TIME	LOCATION	DRONE DEPLOYMENT CRITERIA	INCIDENT DISPOSITION	FOOTAGE OBTAINED
11	Campos	18-7193	6/20/19	0700	400 blk W. Elk Ave, Glendale	Supporting Search/Arrest Warrant Operation	Arrest made	3 videos
12	Grant	19-3331	6/21/19	0425	11900 blk Washington Blvd, Culver City	Perimeter Search for Armed and/or Felony Suspects	Unable to locate suspects	1 video
13	Baskaron	19-3357	6/22/19	1002	11784 Hammack St, Culver City	Perimeter Search for Armed and/or Felony Suspects	Arrest made	1 video
14	Campos	19-2722	6/25/19	0741	200 blk S. Delano St, Anaheim	Supporting Search/Arrest Warrant Operation	Arrest made	4 video
15	Barbosa	19-3390	6/28/19	1000	Herrin Ave, Redondo Beach	Supporting Search/Arrest Warrant Operation	Arrest made	12 videos
16	Amerian	19-3907	7/22/19	0725	12700 blk Washington Blvd Culver City	Fire	N/A	N/A
17	Campos	19-3910	7/22/19	1100	13400 blk Washington Blvd Culver City	Disaster Mgmt, Bomb Threat	Unfounded	N/A
18	Campos	19-3907	7/22/19	1149	12700 blk Washington Blvd Culver City	Fire	N/A	N/A
19	Amerian	19-4225	8/8/19	1149	5900 blk Chariton Ave, Los Angeles	Perimeter Search for Armed and/or Felony Suspects	N/A	N/A
20	Amerian	19-4270	8/11/19	1149	5800 blk Canterbury Dr, Culver City	Perimeter Search for Armed and/or Felony Suspects	N/A	N/A

	PILOT	DR#	DATE	TIME	LOCATION	DRONE DEPLOYMENT CRITERIA	INCIDENT DISPOSITION	FOOTAGE OBTAINED
21	Park	19-4424	8/19/19	1100	3800 blk Bentley Ave, Culver City	Perimeter Search for Armed and/or Felony Suspects	Arrest made	N/A
22	Park	19-4516	8/23/19	1445	4500 blk Moore St, Culver City	Perimeter Search for Armed and/or Felony Suspects	Unable to locate suspects	N/A
23	Campos	19-4854	10/1/19	0954	4600 blk 50th St, Vernon	Supporting Search/Arrest Warrant Operation	Property Obtained	N/A
24	Park	19-5745	10/27/19	0030	Ocean Dr/ Westwood Blvd, Culver City	Perimeter Search for Armed and/or Felony Suspects	Arrest made	2 videos
25	Campos	19-5782	10/31/20	0705	11048 Washington Blvd Culver City	Supporting Search/Arrest Warrant Operation	Arrest made	2 videos (Approx. 14 mins)
26	Ogden	19-6075	11/12/19	1300	10887 Flaxton St, Culver City	Directed Search for Discarded Evidence	Arrest made	2 videos (Approx. 5 mins)
27	Jaen	19-6369	11/29/19	1430	Bankfield Ave/ Selmarine Dr, Culver City	Directed Search for Discarded Evidence	Arrest made	5:43 mins video
28	Jaen	19-6805	12/24/19	1925	5870 Green Valley Cir, Culver City	Possible Burglary Suspects in Residence	Unable to locate suspects, assisted clearing residence	1 video Unable to Download

	PILOT	DR#	DATE	TIME	LOCATION	DRONE DEPLOYMENT CRITERIA	INCIDENT DISPOSITION	FOOTAGE OBTAINED
29	Campos	20-0215	1/17/20	1715	8534 Washington Blvd, Culver City	Supporting Search/Arrest Warrant Operation	Unable to locate suspects	1 picture 6 videos
30	Amerian	20-0335	1/20/20	2120	9726 Venice Blvd, Los Angeles	Perimeter Search for Armed and/or Felony Suspects	Unable to locate suspects	1 video
31	Badour	20-1212	3/8/20	1255	4215 Huntley Ave, Culver City	Barricaded Suspect, Perimeter Search for Armed and/or Felony Suspects	Arrest made WIC 5150 hold	5 videos
32	Ogden	20-1425	3/27/20	0100	670 Kelton Ave, Los Angeles	Perimeter Search for Armed and/or Felony Suspects	Unable to locate suspects	2 videos
33	Ogden	20-1445	3/28/20	2245	10955 Washington Blvd, Culver City	Perimeter Search for Armed and/or Felony Suspects	Unable to locate suspects	2 videos
34	Park	20-1558	4/12/20	0810	5963 Washington Blvd, Culver City	Perimeter Search for Armed and/or Felony Suspects	Unable to locate suspects	9:05 mins video
35	Ogden	20-1674	4/26/20	0004	5846 Perry Dr, Culver City	Perimeter Search for Armed and/or Felony Suspects	Arrest made	1 video
36	Simon	20-1843	5/9/20	1955	8631 Washington Blvd, Culver City	Perimeter Search for Armed and/or Felony Suspects	Subject located	Approx. 3 mins video

	PILOT	DR#	DATE	TIME	LOCATION	DRONE DEPLOYMENT CRITERIA	INCIDENT DISPOSITION	FOOTAGE OBTAINED
37	Park	20-1854	5/10/20	1330	4252 Mildred Ave, Culver City	Perimeter Search for Armed and/or Felony Suspects	Arrest made	22 videos (25:08 mins total)
38	Park	20-2183	6/2/20	0240	4046 Centinela Ave, Culver City	Perimeter Search for Armed and/or Felony Suspects	Unable to locate suspects, roof check cleared	6 videos (81:02 mins total)
39	Simon	20-2208	6/3/20	2239	4027 Sepulveda Blvd, Culver City	Perimeter Search for Armed and/or Felony Suspects	Unable to locate suspects, roof check cleared	2 videos (17:34 mins total)
40	Garcia	20-2309	6/12/20	1730	8512 National Blvd, Culver City	Perimeter Search for Armed and/or Felony Suspects	Unable to locate suspects	6 videos (4:33 mins total)
41	Garcia	20-2544	7/1/20	1350	9530 Jefferson Blvd, Culver City	Fire Crime Scene Investigation	Suspect Arrested	16 pictures
42	Railsback	20-2615	7/7/20	0852	Sepulveda Blvd/ Centinela Ave, Culver City	Crime Scene Investigation	Fatal Traffic Collision	10 pictures 5 videos (9:05 mins total)
43	Barbosa	20-2921	7/30/20	1515	Washington Blvd/ Fairfax Ave, Culver City	Crime Scene Investigation	Arrest made	Approx. 5 min video
44	Simon	20-2911	8/5/20	0710	7503 Hannum Ave, Culver City	Support Search/Arrest Warrant Operation	Search Warrant	Approx. 9 mins video
45	Eszlinger (ESPD)	ESPD 20-1983	8/29/20	0046	5851 Adams Blvd, Culver City	Perimeter Search for Armed and/or Felony Suspects	Arrest made	1:25 mins video

	PILOT	DR#	DATE	TIME	LOCATION	DRONE DEPLOYMENT CRITERIA	INCIDENT DISPOSITION	FOOTAGE OBTAINED
46	Badour	20-3549	9/21/20	0209	9910 Jefferson Blvd, Culver City	Perimeter Search for Armed and/or Felony Suspects	Unable to locate suspects	None
47	Simon	20-3846	10/15/20	0700	11265 Malat Way, Culver City	Support Search/Arrest Warrant Operation	Warrant served, no arrest made	Approx. 9 mins video
48	Badour	20-3929	10/18/20	2220	4411 Sepulveda Blvd, Culver City	Perimeter Search for Armed and/or Felony Suspects	Unable to locate suspects, roof check cleared	Approx. 10 mins video
49	Barbosa	20-4464	12/17/20	1100	5951 Canterbury Dr, Culver City	Fire	Photos/Video for CCFD Incident	1 video
50	Jaen	21-066	1/4/21	1922	4182 Inglewood Blvd, Culver City	Perimeter Search for Armed and/or Felony Suspects	Arrest made	1 video



Overtime Costs

Although we often have pilots on duty when a UAV is needed, there are times when a pilot is called in from home on overtime or held over their regular work hours on overtime for emergency incidents. Overtime is also incurred when we hold training days, as many of the pilots are off duty when the training occurs. The total overtime cost for the first seven months of the pilot program was approximately **\$21,418**. Most of that was incurred early on in the program when our pilots were being trained and were working toward their license. The overtime costs over the next fifteen months of the pilot program was **\$11,657**, making the total overtime cost for the twenty-two-month pilot program **\$33,075**.

Equipment Costs

The initial purchase price of the UAVs was approximately **\$67,000**. This included a total of eight UAVs: four DJI Phantom 4, two Sparks, and two Matrice 210 models. Also included in the initial purchase price were batteries, cameras, service plans for some of the UAVs, and other supporting equipment.

After the initial purchase of the UAVs, we purchased additional service plans and equipment. Some the additional equipment we purchased included: aftermarket lights, additional batteries, storage racks, additional warranties, training materials and classes, and propeller cages. These purchases brought our total equipment costs to **\$85,687**.

Two UAVs were damaged in training incidents. In the first incident, a UAV lost power during a test flight and fell several feet onto the roof of the Police Department due to an equipment malfunction. The second UAV was damaged when it collided with a power pole guide wire due to pilot error. Both UAVs were under warranty and repaired by the manufacturer at no cost. We have not had any accidents or UAVs damaged during field deployments.

Training materials and classes costs during the second portion of the pilot program were approximately **\$1,464** dollars. This brings the total equipment costs for the twenty-two-month pilot program to **\$87,151**.

OVERTIME	HOURS	TOTAL COST
Months 1-7	258	\$21,418
Months 8-22	148	\$11,657
TOTAL OVERTIME		\$33,075
EQUIPMENT		TOTAL COST
Months 1-7		\$85,687
Months 8-22		\$1,464
TOTAL EQUIPMENT		\$87,151
TOTAL PROGRAM COST		\$120,226

Additional Information

A monthly UAV utilization log is published in the Culver City Police Department’s Monthly Report, which can be viewed at www.culvercitypd.org. If you have questions or concerns regarding the UAV program, please contact:

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